From: Ephraim Leon-Guerrero
To: David Albright
Subject: Maui
Date: 08/09/2007 01:07 PM
Attachments: 5w12s west&central maui-not closed-streamlined fields.xls

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David - Here are the revisions. I had to go back and run some more queries. This time I focused more on LCCs. - Ephraim

John,

Here are some of our findings after digging around our UIC database and speaking with Chauncey Hew.

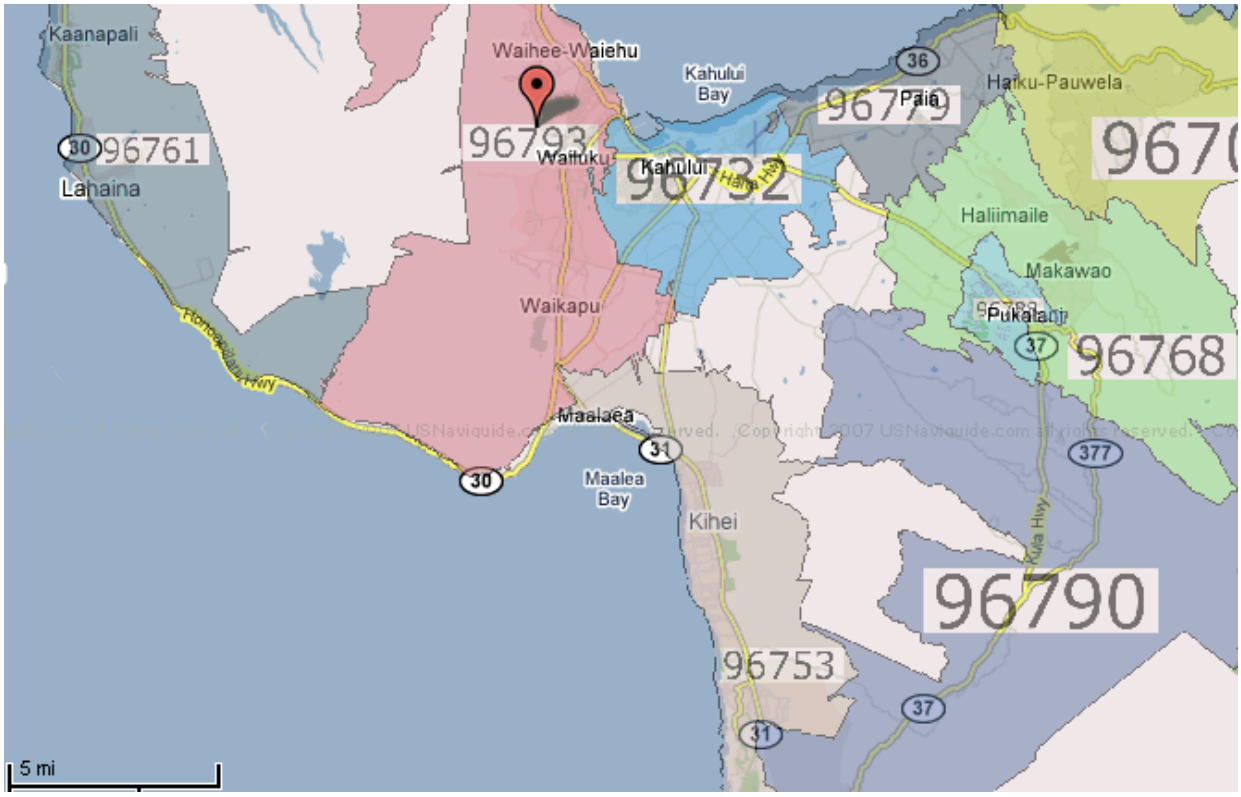
EPA UIC Well Data
We focused our search on the three areas mentioned in the article: "Areas with the biggest swings in favor of algae are close to four areas where sewage injection wells are suspected of providing nutrients for seaweed. They are Maalaea, where the injection wells are private, connected to condominiums and the shopping center; and Lahaina, Kihei and Kahului, where the county has wastewater treatment plants."
http://www.mauinews.com/story.aspx?id=32755

Searching our UIC database in the four zip codes (see following map: zip codes are the only way to geographically-search the database) shows there are 25 Class 5W12 wells or domestic wastewater treatment plant effluent injection wells. Available data indicate 18 of the 25 wells have HDOH UIC permit numbers:

Area	Zip Code	No. of 5W12s	No. of 5W12s w/DOH permit number
Kihei/Maalaea	96753	3	1
Lahaina	96761	15	14
Waikapu/Maalaea	96793	6	2
Kahului (Zip Code 96732)	96732	1	1

The attached spreadsheet lists the 25 5W12s in the four areas in more detail. Note: The "comments" section (last column) of the spreadsheet indicates whether or not the facility has an HDOH with the wording "HI Permit # UM".

5w12s west&central maui-not closed-streamlined fields.xls



Large Capacity Cesspools
The database lists 159 LCCs in the four zip codes. Of the 159 LCCs, 29 have been closed permanently. Keep in mind, this is what's in our database - the universe is likely larger because many LCCs have not been inventoried.

HDOH UIC Well Data
Chauncey's staff keep an electronic database of state-permitted wells, but much like ours it does not contain all operational information (e.g., injection rate, etc.). In addition, their database is typically updated only when a major permit action occurs such as a permit renewal. Thus, expired permits may not show up as such. He agreed to send us the Maui file that is either in Excel or Access format. (Liz Janes doesn't recall them ever sending us information in an electronic format, so we'll see what we get and hopefully we can compare with our data set.)

Non-permitted facilities
Laura mentioned around the time we were permitting Lahaina WWTP, permit applications were received from several other facilities but later withdrawn. The available information on these facilities is limited, but there appears to be no withdrawn applications for 5W12s in the four zip codes.

Other Issues - Reuse?
Another related issue may be the rate at which WWTPs meet their effluent reuse/reclamation commitments - http://mauinews.com/story.aspx?id=30854. Similar to the Kealakehe WWTP situation on the Big Island, it appears reuse commitments were made during the construction grants days but it's unclear if or even how they're actually being met. Costs have become too prohibitive or the planned golf courses were never completed. The Lahaina federal UIC permit does not specifically require reuse but apparently up to 19% of their effluent is.

Hope this helps. We can set up a call to discuss.

David